

# South Carolina Department of Health and Environmental Control (S.C.D.H.E.C.) Underground Storage Tank (UST) Assessment Report

| _ | Submit Completed Form to: | _ |
|---|---------------------------|---|
|   | Date Received             |   |
|   | State Use Only            |   |

UST Regulatory Section SCDHEC 2600 Bull Street Columbia, South Carolina 29201 Telephone (803) 734-5331

### I OWNERSHIP OF SUSPECTED UST(S)

Agency/Owner: Southern Division, Naval Facilities Engineering Command, Caretaker Site Office

Mailing Address: P.O. Box 190010

City: N. Charleston State: SC Zip Code: 29419-9010

Area Code: 843 Telephone Number: 743-9985 Contact Person: Matthew Humphrey

#### II SITE IDENTIFICATION AND SUSPECTED LOCATION

| Site I.D. #:    | Unregulated                  |                    |
|-----------------|------------------------------|--------------------|
| Facility Name:  | Charleston Naval Base Comple | ex, Building X-12  |
| Street Address: | 2277 South Hobson Avenue     |                    |
| City:           | North Charleston, 29405      | County: Charleston |

#### III CLOSURE INFORMATION

| Closure Started: 14 May 2001    | Closure Completed: N/A     |
|---------------------------------|----------------------------|
| Number of USTs Closed: 0 -1 N/A | no tank found<br>EEG, Inc. |
| Consultant                      | UST Removal Contractor     |

### IV. CERTIFICATION (Read and Sign after completing entire submittal)

| I certify that I have personally examined and am familiar with the information submitted in this and all attached documents; and that based on my inquiry of those individuals responsible for obtaining this information. I believe that the submitted information is true, accurate and complete.  Matthew Humphrey  Name (Type or Print) |  |
|---|--|
| Maure Hungthey<br>Signature   |  |

|    |  | Tank 1     | Tank 2   | Tank 3    | Tank 4  | Tank 5        |
|----|--|------------|----------|-----------|---------|---------------|
|    | V. UST INFORMATION   | N/A        |          |           |         |               |
| A. | Product  | N/A        |          |           |         | ,             |
| B. | Capacity   |            |          |           |         |               |
| C. | Age  | N/A.       |          |           |         |               |
| D. | Construction Material  | N/A        |          |           |         |               |
| E. | Month/Year of Last Use   | N/A        |          |           |         |               |
| F. | Depth (ft.) To Base of Tank  | N/A        |          |           |         |               |
| G. | Spill Prevention Equipment Y/N   | N/A        |          |           |         |               |
| Н  | Overfill Prevention Equipment Y/N  | N/A        |          |           |         |               |
| I. | Method of Closure Removed/Filled   | N/A        |          |           |         |               |
| J. | Date Tanks Removed/Filled  | N/A        |          |           |         |               |
| K. | Visible Corrosion or Pitting Y/N   | N/A        |          |           |         |               |
| L. | Visible Holes Y/N  |            |          |           |         |               |
|    |  |            |          |           |         |               |
| M. | Method of disposal for any USTs removed from                                   | m the grou | ınd (atı | tach disp | posal m | anifests)     |
|    | N/A  |            |          |           |         |               |
|    |  |            |          |           |         |               |
| N. | Method of disposal for any liquid petroleum, sl<br>(attach disposal manifests) | ludges, or | waste    | waters r  | emoveo  | d from the US |
|    | N/A.   |            |          |           |         |               |
|    |  |            |          |           |         |               |

If any corrosion, pitting, or holes were observed, describe the location and extent for each UST

O.

N/A

### VI. PIPING INFORMATION

|    |   | -     |  |  |
|----|---|-------|--|--|
| A. | Construction Material                   | Steel |  |  |
| B. | Distance from UST to Dispenser          | N/A   |  |  |
| C. | Number of Dispensers                    | 1     |  |  |
| D. | Type of System P/S                      | S     |  |  |
| E. | Was Piping Removed from the Ground? Y/N | Y     |  |  |
| F. | Visible Corrosion or Pitting Y/N        | Y     |  |  |
| G. | Visible Holes Y/N                       | N     |  |  |
| H. | Age                                     | Unk.  |  |  |

Tank 3

Tank 2

Tank 4

I. If any corrosion, pitting, or holes were observed, describe the location and extent for each line.

Surface rust and some pitting were observed on the portion of the piping under the slab in contact with the ground.

### VII. BRIEF SITE DESCRIPTION AND HISTORY

No UST was found at this site. The purpose of this report is to document the conditions that were found. The suspicion of a UST was apparently based on the piping stub and the dispener inlet piping that penetrated the concrete slab on which the dispenser was located. Removal of the slab showed the stub piping to be part of the dispenser inlet piping. This strongly suggest that an AST rather than UST supplied the dispenser. This is further supported by markings on top of the slab of the type that typical foundation legs for an AST would have made.

### VIII. SITE CONDITIONS

Yes No Unk

| A. | Were any petroleum-stained or contaminated soils found in the suspected UST excavation, soil borings, trenches, or monitoring wells?  If yes, indicate depth and location on the site map. | X |     |
|----|--|---|-----|
| В. | Were any petroleum odors detected in the excavation, soil borings, trenches, or monitoring wells?  If yes, indicate location on site map and describe the odor (strong, mild, etc.)        | X |     |
| C. | Was water present in the UST excavation, soil borings, or trenches?  If yes, how far below land surface (indicate location and depth)?   |   | X   |
| D. | Did contaminated soils remain stockpiled on site after closure?  If yes, indicate the stockpile location on the site map.  Name of DHEC representative authorizing soil removal:           |   | X*  |
| E. | Was a petroleum sheen or free product detected on any excavation or boring waters?  If yes, indicate location and thickness.   |   | X** |

<sup>\*</sup> All excavated soil was returned to the pit.

<sup>\*\*</sup> No groundwater was encountered.

# IX. SAMPLE INFORMATION

A. SCDHEC Lab Certification Number 10120

B.

| Sample # | Location<br>(Soil/V             | Sample Type<br>Vater) (Sand/Cl | Soil Type D | epth* D<br>Collect | ate/Time of Co  | ollected OV     | A#       |
|----------|---------------------------------|--------------------------------|-------------|--------------------|-----------------|-----------------|----------|
| 1-12     | Dispenser end of the Excavation | Soil                           | Sand        | 5'                 | 5/15/01<br>0830 | C<br>Wannamaker | 1200 ppm |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |
|          |                                 |                                |             |                    |                 |                 |          |

<sup>\* =</sup> Depth Below the Surrounding Land Surface

### X. SAMPLING METHODOLOGY

Provide a detailed description of the methods used to collect and store (preserve) the samples.

Although no UST was found, one soil sample was taken. Sampling was performed in accordance with SC DHEC R.61-92 Part 280 and SC DHEC UST Assessment Guidelines.

Sample jars were prepared by the testing laboratory. Soil samples were extracted at the tank ends. The grab method was utilized to fill the sample containers leaving as little head space as possible and immediately capped. Samples for volatiles were taken using the Encore sampler and T-handle.

The samples were marked, logged, and immediately placed in sample coolers packed with ice to maintain an approximate temperature of 4? C. Tools were thoroughly cleaned and decontaminated with organic-free soap and water after each sample.

The samples remained in the custody of EEG, Inc. until they were transferred to General Engineering Laboratories for analysis as documented in the attached Chain-of-Custody Record.

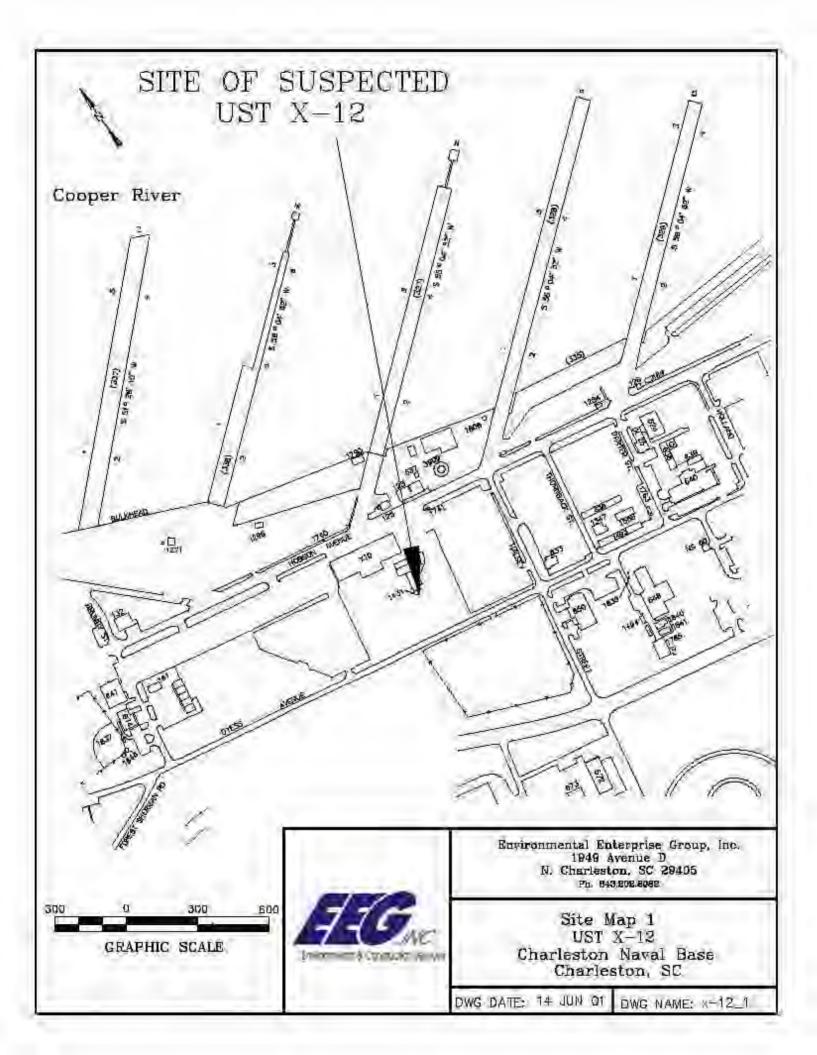
| A. | Are there any lakes, ponds, streams, or wetlands located within 1000 feet of the UST system dispenser?  | X |   |
|----|---|---|---|
|    | If yes, indicate type of receptor, distance, and direction on site map.   |   |   |
|    | [~650' to Cooper River]   |   |   |
| В. | Are there any public, private, or irrigation water supply wells within 1000 feet of the UST system dispenser?   |   | X |
|    | If yes, indicate type of well, distance, and direction on site map.   |   |   |
| C. | Are there any underground structures (e.g., basements) located within 100 feet of the UST system dispenser?   |   | X |
|    | If yes, indicate the type of structure, distance, and direction on site map.  |   |   |
| D. | Are there any underground utilities (e.g., telephone, electricity, gas, water, sewer, storm drain) located within 100 feet of the UST system dispenser that could potentially come in contact with the contamination? | X |   |
|    | If yes, indicate the type of utility, distance, and direction on the site map.  |   |   |
| E. | Has contaminated soil been identified at a depth of less than 3 feet below land surface in an area that is not capped by asphalt or concrete?   |   | X |
|    | If yes, indicate the area of contaminated soil on the site map.   |   |   |

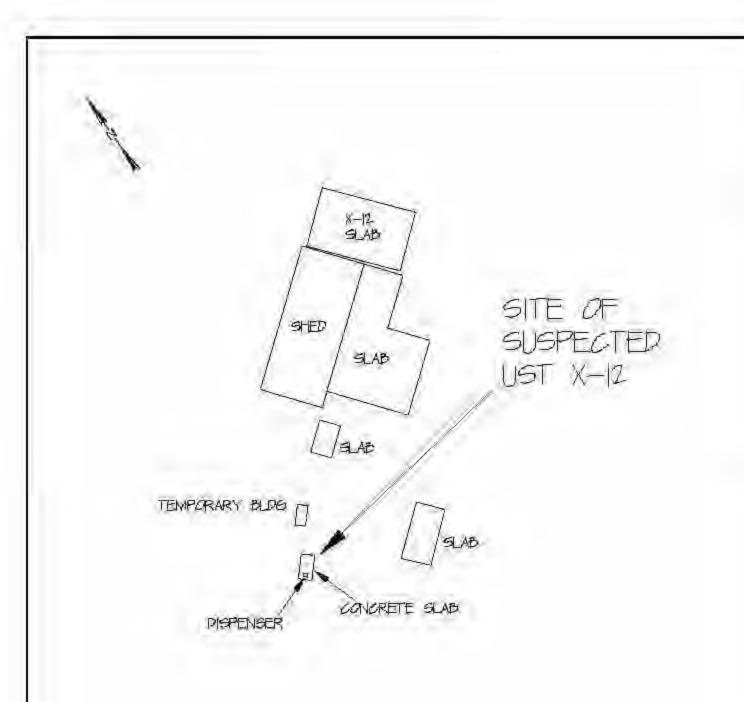
### **Attachment I**

### SITE MAP

You must supply a <u>scaled</u> site map. It should include all buildings, road names, utilities, tank and dispenser island locations, labeled sample locations, extent of excavation, and any other pertinent information.

Site Maps 1 and 2 Photographs A through F









Environmental Enterprise Group, Inc. 1949 Avenue D N Charleston, SC 29405 Ph. 843.202.4082

Site Map 2 UST X-12 Charleston Naval Base Charleston, SC

DWG DATE: 15 JUN 01

DWG NAME: X-12\_2



Photo A – Site, looking east prior to commencing work.



Photo B-Site, looking north, prior to commencing work. Note that markings (see arrows) on the slab indicate an AST being previously installed here.



Photo C – Dispenser removed.



Photo D - Underside of slab showed piping connecting the dispenser and the piping stub shown in Photos B and C.



Photo E - Digging area that was underneath slab to a depth of five feet. Neither a UST nor any UST related piping was found.



Photo F – Site restoration.

### **Attachment II**

### ANALYTICAL RESULTS

You must submit the laboratory report and chain-of-custody form for the samples. These samples must be analyzed by a South Carolina certified laboratory.

Certified Analytical Results Chain-of-Custody



### GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

# **Certificate of Analysis**

Company: EEG, Inc.

Address:

1649 Avenue D

Charleston, SC 29405

Contact:

Copes Wanamaker

Project:

Routine Analytical - Wanamaker

Report Date: May 22, 2001

EEGI00201

EEGI001

Project: Client ID:

1 of 2

Client Sample ID:

Sample ID:

1-12 42301001

Matrix:

Soil

Collector:

15-MAY-01 15-MAY-01 Client

23.8%

Collect Date: Receive Date:

Moisture:

| Parameter               | Qualifier | Result | DL    | RL   | Units | DF | AnalystDate   | Time | Batch | Method |
|-------------------------|-----------|--------|-------|------|-------|----|---------------|------|-------|--------|
| Semi-Volatiles-GC/MS    |           |        |       | . ,  |       |    |               |      |       |        |
| 3550/8270 PAH STD LIST  | 'IN SOIL  |        |       |      |       |    |               |      |       |        |
| Acenaphthene            |           | 75.4   | 5.25  | 43.7 | ug/kg | 1  | KGB1 05/18/01 | 0023 | 78361 | 1      |
| Acenaphthylene          | U         | ND     | 4.81  | 43.7 | ug/kg | 1  |               |      |       |        |
| Anthracene              |           | 126    | 6.12  | 43.7 | ug/kg | 1  |               |      |       |        |
| Benzo(a)anthracene      |           | 550    | 7.87  | 43.7 | ug/kg | 1  |               |      |       |        |
| Benzo(a)pyrene          |           | 389    | 2.62  | 43.7 | ug/kg | 1  |               |      |       |        |
| Benzo(b)fluoranthene    |           | 508    | 3.06  | 43.7 | ug/kg | 1  |               |      |       |        |
| Benzo(ghi)perylene      |           | 172    | 6.56  | 43.7 | ug/kg | 1  |               |      |       |        |
| Benzo(k)fluoranthene    |           | 565    | 6.56  | 43.7 | ug/kg | 1  |               |      |       |        |
| Chrysene                |           | 782    | 8.31  | 43.7 | ug/kg | 1  |               |      |       |        |
| Dibenzo(a,h)anthracene  | U         | ND     | 3.50  | 43.7 | ug/kg | 1  |               |      |       |        |
| Fluoranthene            |           | 2000   | 4.37  | 43.7 | ug/kg | 1  |               |      |       |        |
| Fluorene                | U         | ND     | 3.94  | 43.7 | ug/kg | 1  |               |      |       |        |
| Indeno(1,2,3-cd)pyrene  |           | 159    | 8.75  | 43.7 | ug/kg | 1  |               |      |       |        |
| Phenanthrene            |           | 609    | 5.25  | 43.7 | ug/kg | 1  |               |      |       |        |
| Pyrene                  |           | 1930   | 11.4  | 43.7 | ug/kg | 1  |               |      |       |        |
| Volatile Organics       |           |        |       |      | 5 5   |    |               |      |       |        |
| 5035/8260B BTEX Extende | ed List   |        |       |      |       |    |               |      |       |        |
| Benzene                 | U         | ND     | 0.574 | 2.94 | ug/kg | 1  | TLW 05/16/01  | 1801 | 78028 | 2      |
| Ethylbenzene            | U         | ND     | 0.515 | 2.94 | ug/kg | 1  |               |      |       |        |
| Naphthalene             | U         | ND     | 0.427 | 1.47 | ug/kg | 1  |               |      |       |        |
| Toluene                 | Ū         | ND     | 0.736 | 2.94 | ug/kg | 1  |               |      |       |        |
| Xylenes (total)         | Ü         | ND     | 1.54  | 4.41 | ug/kg | 1  |               |      |       |        |
| tert-Butyl methyl ether | Ū         | ND     | 3.35  | 2.94 | ug/kg | 1  |               |      |       |        |

The following Prep Methods were performed

| Method      | Description                        | Analyst | Date     | Time | Prep Bate |
|-------------|------------------------------------|---------|----------|------|-----------|
| SW846 3550B | 3550B BNA Soil Prep-8270C Analysis | RDH     | 05/17/01 | 1100 | 78145     |
| SW846 5035  | 5030/8260A and 5035/8260B Prep     | TLW     | 05/16/01 | 1739 | 78026     |

The following Analytical Methods were performed

| Method | Description |  |
|--------|-------------|--|
| 1      | SW846 8270C |  |
| 2      | SW846 8260B |  |



#### GENERAL ENGINEERING LABORATORIES

Meeting today's needs with a vision for tomorrow.

## **Certificate of Analysis**

Company:

EEG, Inc.

Address:

1649 Avenue D

Charleston, SC 29405

Contact:

Copes Wanamaker

Project:

Routine Analytical - Wanamaker

Report Date: May 22, 2001

Page

of 2

Client Sample ID: Sample ID:

1-12 42301001 Project: Client ID: EEGI00201 EEGI001

| Parameter            | Qualifier | Result                 | DL      | RL  | Units    | DF        | AnalystDate  | Time | Batch | Method |
|----------------------|-----------|------------------------|---------|-----|----------|-----------|--|------|-------|--------|
| Surrogate recovery   | Test      |                        | Recover | у%  | Acceptab | le Limits |  |      |       |        |
| 2-Fluorobiphenyl     | 3550/827  | 0 PAH STD LIST IN SOIL | -       | 17% | (420     | %-108%)   | Market Co., 1857 P. Co., 1857 P |      |       |        |
| Nitrobenzene-d5      | 3550/827  | 0 PAH STD LIST IN SOIL | (       | 68% | (399     | %-107%)   | r  |      |       |        |
| p-Terphenyl-d14      | 3550/827  | 0 PAH STD LIST IN SOIL | Ģ       | 07% | (469     | %-128%)   | ı  |      |       |        |
| Bromofluorobenzene   | 5035/826  | OB BTEX Extended List  | Ģ       | 93% | (619     | %-146%)   | r  |      |       |        |
| Dibromofluoromethane | 5035/826  | OB BTEX Extended List  | g       | 8%  | (549     | %-144%)   |  |      |       |        |
| Toluene-d8           | 5035/826  | OB BTEX Extended List  | 10      | )[% | (619     | %-131%)   |  |      |       |        |

#### Notes:

The Qualifiers in this report are defined as follows:

- Indicates the analyte is a surrogate compound.
- < Actual result is less than amount reported
- Actual result is greater than amount reported
- Indicates an estimated value. The result was greater than the detection limit, but less than the reporting limit.
- U Indicates the compound was analyzed for but not detected above the detection limit

The above sample is reported on a dry weight basis.

This data report has been prepared and reviewed in accordance with General Engineering Laboratories, Inc.

standard operating procedures. Please direct any questions to your Project Manager, Tom Seabrook at 843-556-8171 Ext. 4479.

Reviewed by

# **CHAIN OF CUSTODY RECORD**

General Engineering Laboratories, Inc. 2040 Savage Road Charleston, South Carolina 29407 P.O. Box 30712 Charleston, South Carolina 29417 (843) 556-8171

| Client Name/Facility Name  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              | F or P in the boxes to indicate whether |                  |       |         |                |                      |           |          |                                      |
|--|--------|---------------|-----------|----------|-----------------|-----------------------------------|---------|-----|--------------------------------|-----------------|----------------------------------|------------------|-----------|------------------------|--------------|---|------------------|-------|---------|----------------|----------------------|-----------|----------|--------------------------------------|
| KEG T  | NO.    |               |           |          | SRS             | $oxed{oldsymbol{oldsymbol{eta}}}$ |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      | 4         | <b>4</b> | sample was filtered and/or preserved |
| Collected by/Company   |        |               |           | į        | ity             |                                   |         | 흊   | d)                             | _ <u>2</u>      | Ę.                               |                  |           |                        | Pies         | Se                                      |                  |       | iş.     | ¥.,            | Ē                    |           |          |                                      |
| Client Name/Facility Name  EEG INC  Collected by/Company  C Wannamulur |        |               |           | ¥        | ıctiv           | ບ                                 |         | Ē   | trat                           | e ei            | 8-                               | i                | .         | 2                      | acta         | ctal                                    |                  |       | Š.      | č\$            | 8                    |           |          |                                      |
| C. Oralala a locales   |        |               |           | <u> </u> | puo<br>oudi     | Š                                 |         | e ë | e/Ni                           | S.P             | ALS.                             | ide              | icide     | 풒                      | Ext          | X                                       | <sub>s</sub>     | ide   | Ę       | 500<br>200     | 4                    |           |          |                                      |
| SAMPLE ID  | DATE   | TIME          | WELI      | COMP     | # OF CONTAINERS | pH, conductivity                  | TOC/DOC | тох | Chloride, Fluoride,<br>Sulfide | Nitrite/Nitrate | VOC - Specify<br>Method required | METALS - specify | Pesticide | Herbicide              | Total Phenoi | Acid Extractables                       | B/N Extractables | PCB's | Cyanide | Colife<br>type | BTEX + NAPH<br>8262C | PA# 8270B |          | Remarks                              |
| H2   | 5/15/0 | 0850          |           | X        |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       | _       |                | X                    | <b>x</b>  |          |                                      |
|  | •      |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           |                        |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           | -                      |              |   |                  |       |         |                |                      |           |          |                                      |
|  |        |               |           |          |                 |                                   |         |     |                                |                 |                                  |                  |           | _                      |              |   |                  |       |         |                |                      |           |          |                                      |
| Relinquished by:  Relinquished by:                                     | a,t    | Date: 5/15/01 | Tim<br>J2 |          |                 | Received by:                      |         |     |                                |                 |                                  |                  |           | Relinquished by: Date: |              |   |                  |       |         |                |                      | :         | Time:    | Received by:                         |
| Relinquished by:  Date: Time:  |        |               |           |          | Rece            | Received by lab by:               |         |     |                                |                 |                                  |                  |           | Date: Time: Remarks:   |              |   |                  |       |         |                |                      |           |          |                                      |

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